

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A computer system for identifying a target component in an apparatus that has components related in a hierarchy, the computer system comprising:

a first computer operable to execute a first application ~~in which objects represent corresponding components~~, wherein the first application relates ~~the objects representing corresponding components~~ in both a type hierarchy identifying types of components and a ~~different separate object~~ hierarchy identifying information associated with objects, wherein the type hierarchy and the object hierarchy identify the components in a first natural language;

a second computer coupled to the first computer via a network;

wherein the first computer includes a message generator operable to receive information relating to both the type hierarchy and the object hierarchy from the first application and the message generator further operable to provide to the second computer a message with comprising a type chain identifying a path in the type hierarchy in a parent-child direction and an object chain [[also]] identifying a path in the object hierarchy in the parent-child direction, wherein the type chain [[includes]] identifies a type node associated with a target object and the object chain [[includes]] identifies an object node associated with the target object, wherein a combination of the type node and the object node ~~identify~~ identifies the target object that corresponds to the target component, and wherein a combination of ascendants of the type node and ascendants of the object node correspond to parent components; and

wherein the second computer has a message interpreter operable to parse both chains to provide identification of the target component with the combination of the type node and the object node as well as to provide identification of the parent components with [[types]] the combination of ascendants of the type node and [[objects]] ascendants of the object node, wherein the identification provided by the message interpreter further includes translating information from the first natural language to a different natural language using both the chains.

2. (Original) The computer system of claim 1, wherein the first computer presents type-object hierarchy information to a first user and thereby adds type statements in a first language, and wherein the second computer presents identification of types in a second language.

3. (Previously Presented) The computer system of claim 1, wherein the message generator at the first computer is operable to append an identifier type to the type chain, and to append an identifier object to the object chain.

4. (Currently Amended) A method for identifying a target component in an apparatus that has components related in hierarchy, the method comprising:

representing the components by corresponding objects, thereby relating objects in both a type hierarchy identifying types of components and a ~~different~~ separate object hierarchy identifying information associated with objects, wherein the type hierarchy and the object hierarchy identify the components in a first natural language;

deriving a message from information for both the type hierarchy and the object hierarchy, the message with a type chain identifying a path in the type hierarchy in a parent-child direction and an object chain ~~[[also]]~~ identifying a path in the object hierarchy in the parent-child direction, wherein the type chain ~~[[includes]]~~ identifies a type node associated with a target object and the object chain ~~[[includes]]~~ identifies an object node associated with the target object, wherein a combination of the type node and the object node ~~[[identify]]~~ identifies the target object that corresponds to the target component, and wherein a combination of ascendants of the type node and ascendants of the object node correspond to parent components; and

parsing the message to provide identification of the target component with the combination of the type node and object node as well as to provide identification of the parent components with ~~[[types]]~~ the combination of ascendants of the type node and ~~[[objects]]~~ ascendants of the object node, wherein the identification further includes translating information from the first natural language to a different natural language using both type and object information.

5. (Original) The method of claim 4, further comprising displaying the identification of the target component with type statements, wherein the type statements are provided locally.

6. **(Currently Amended)** A combination of complementary first and second computer program products, for use in a computer system to identify a target component of an apparatus that has a plurality of components related in hierarchy, both computer program products having a machine-readable medium storing instructions for causing data processing, instructions are distributed in the system as follows:

in the first computer program product to control a first computer, the instructions operable to represent the components by corresponding objects, and thereby to relate objects in both a type hierarchy identifying types of components and a [[different]] separate object hierarchy identifying information associated with objects, wherein the type hierarchy and the object hierarchy identify the components in a first natural language;

in the first computer program product, the instructions further operable to derive a message from information for both the type hierarchy and the object hierarchy, the message with comprising a type chain identifying a path in the type hierarchy in a parent-child direction and an object chain [[also]] identifying a path in the object hierarchy in the parent-child direction, wherein the type chain [[includes]] identifies a type node associated with a target object and the object chain [[includes]] identifies an object node associated with the target object, wherein a combination of the type node and the object node [[identify]] identifies the target object that corresponds to the target component, and wherein a combination of ascendants of the type node and ascendants of the object node correspond to parent components; and

in the second computer program product to control a second computer, the instructions operable to parse the message to provide identification of the target component with the combination of the type node and the object node as well as to provide identification of the parent components with [[types]] the combination of ascendants of the type node and [[objects]] ascendants of the object node, wherein the identification further includes translating information from the first natural language to a different natural language using both type and object information.

7. **(Currently Amended)** A method for identifying a target component by a first computer run-time environment to a second run-time environment, the method comprising:

representing a plurality of objects by the first run-time environment, thereby relating the objects in both a type hierarchy identifying types of components and a [[different]] separate object hierarchy identifying information associated with objects, wherein the type hierarchy and the object hierarchy identify the components in a first natural language;

deriving a message from information for both the type hierarchy and the object hierarchy, the message [[with]] comprising a type chain identifying a path in the type hierarchy in a parent-child direction and an object chain [[also]] identifying a path in the object hierarchy in the parent-child direction, wherein the type chain [[includes]] identifies a type node associated with a target object and the object chain [[includes]] identifies an object node associated with the target object, wherein a combination of the type node and the object node [[identify]] identifies the target object that corresponds to the target component, and wherein a combination of ascendants of the type node and ascendants of the object node correspond to parent components;

forwarding the message to the second run-time environment; and

parsing the message by the second run-time environment to provide identification of the target component with the combination of the type node and the object node as well as to provide identification of the parent components with [[types]] the combination of ascendants of the type node and [[objects]] ascendants of the object node, wherein the identification further includes translating information from the first natural language to a different natural language using both type and object information.

8. **(Original)** The method of claim 7, wherein first and second run-time environments use different object models.